

Remarks

Claims 3, 5-7, 9, 10 and 12-20 are pending. By way of the foregoing amendment, claims 3, 7, 12-16, and 20 have been amended. Support for these amendments can be found throughout the specification as originally filed. No new matter enters by way of these amendments.

1. Status of Prosecution

A decision by the Board of Appeals and Interferences was mailed on December 30, 2004¹. The Board “reverse[d] the written description rejection, and remand[ed] the application to the examiner for further consideration of the utility and enablement rejections.” Board Decision at page 2. The Examiner indicates in the Office Action that “[I]n view of the remand mailed on [12/30/04], PROSECUTION IS HEREBY REOPENED.” Office Action at page 2. Moreover, the Examiner indicates that “[n]ew grounds of rejection are set forth” in the Office Action. *Id.* The Examiner also requires the Applicant to either: “(1) file a reply under 37 CFR 1.111...; or (2) initiate a new appeal by filing a notice of appeal.” *Id.* Applicants acknowledge that prosecution has been reopened in the present Office Action and Applicants submit the instant amendment and response under 37 CFR 1.111.

¹ The Examiner erroneously indicates that the “decision and remand by the Board of appeals [was] dated 5/23/05.”

2. Priority

Applicants acknowledge and thank the Examiner for indicating that “the instant claims are granted priority to at least 10/15/99.” Office Action at page 2. Applicants note that the Examiner also indicated that the “presence of the sequence in the provisional application was not determined.” *Id.*

3. Claim Interpretation

Upon remand, the Board “encourage[d] the examiner to determine the broadest reasonable interpretation of the claimed invention and to include an analysis of this claim construction in any subsequent office action.” Board Decision at page 9. The Examiner acknowledges that “[i]t is clear from the plain meaning of the claim that the ‘promoter region’ of the nucleic acid molecule within the cell must comprise SEQ ID NO: 1.” Office Action at page 3.

In its decision, the Board recognized that part (A) of claims 3 and 7 “is open to at least three possible interpretations.” Board Decision at page 8. The first possibility suggested by the Board was that “SEQ ID NO: 1 contains a promoter region which does function in plant cells to cause the production of a mRNA molecule.” *Id.* The second possibility suggested by the Board was that “SEQ ID NO: 1 does not contain a ‘promoter region,’ but instead contains a ‘regulatory element’ that acts in concert with a promoter regions operably attached, either 5’ or 3’, to SEQ ID NO: 1, and thereby serves to regulate the expression of a mRNA molecule.” *Id.* The Board suggested that an example of such a regulatory element under such a scenario, SEQ ID NO: 1 could be an enhancer region. The third possible interpretation suggested by the Board indicates that “SEQ ID

NO: 1 contains neither a promoter region nor a regulatory element and simply serves as a filler sequence.” *Id.*

The Examiner argues that “[g]iven that the specification asserts that instant SEQ ID NO: 1 may include any or all of [promoter regions, regulatory elements, sequence encoding polypeptides, introns, or intron/exon junctions], but fails to even positively identify a single one of these suggested elements within SEQ ID NO: 1, it cannot be definitely determined if SEQ ID NO: 1 actually contains a promoter or not, based on the teachings of the specification.” Office Action at page 4. The Examiner acknowledges, however, that “the specification clearly supports the first possible interpretation,” and that the “specification further clearly suggests that the claimed molecules may encompass ‘regulatory elements’.” Office Action at page 5. The Examiner further notes that the specification does not appear to support the use of SEQ ID NO: 1 as a “filler sequence.” *Id.*

In addition to the possibilities raised by the Board, Applicants submit that the specification also supports that SEQ ID NO: 1 encompasses additional subject matter, such as partial promoter sequences. *See, e.g.* specification at page 16. Moreover, the skilled artisan would have recognized that regulatory elements can also be found within intron regions of a gene. As such, the Examiner should also consider at least the complete disclosure in the specification.

4. Claim Rejections – 35 U.S.C. § 101, Utility

Claims 3, 5-7, 9-10, and 12-20 stand rejected under 35 U.S.C. § 101, because the claimed invention allegedly lacks patentable utility. Office Action at page 5. Applicants respectfully traverse this rejection.

Initially, Applicants respectfully point out that claims 3, 5-7, and 9-10 are directed to transformed plant cells and transformed plants having a nucleic acid molecule which comprises, *inter alia*, an exogenous promoter region which functions in a plant cell to cause the production of mRNA, where the promoter nucleic acid molecule comprises SEQ ID NO: 1 or a complement thereof. The Office's rejection appears to base the rejection solely on the alleged lack of utility for SEQ ID NO: 1. It is well-established that claims must be considered as a whole in determining compliance with § 101. *Diamond v. Diehr*, 450 U.S. 175, 188, 209 U.S.P.Q. 1, 9 (1981). It is inappropriate to dissect claims and consider some elements while ignoring others. *Id.* Further, it is equally well-established that "when a properly claimed invention meets at least one stated objective, utility under section 101 is clearly shown." *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958, 220 U.S.P.Q. 592, 598 (Fed. Cir. 1983).

The claimed plant cells and plants exhibit the requisite utility quite apart from the utilities of the nucleic acid sequence. For example, the transformed plants having, *inter alia*, an exogenous promoter region comprising a nucleic acid sequence of SEQ ID NO:1 or complement thereof, have utility independent of whether a function is known for the nucleic acid sequence. The specification discloses methods for the preparation of the transgenic plants as well as use in breeding programs to produce plants having genes of interest. *See, e.g.*, specification at page 11, lines 10-18 and page 71, line 6 through page 80, line 3. The specification further describes that the nucleic acid sequences can be used as markers. *See, e.g.*, specification at page 35, line 18 through page 42, line 22. The skilled artisan would recognize that such transformed plants can be more easily followed through a breeding program by the detection of the nucleic acid molecule. These utilities

are immediately apparent for the claimed plants and plant cells without the need for further research.

Moreover, aside from the claim itself, the specification provides a specific, substantial, and credible utility for SEQ ID NO: 1 and complements thereof. For example, as the Office has acknowledged, the specification clearly discloses that SEQ ID NO: 1, can be used as a regulatory region or promoter. *See, e.g.*, specification at page 16, line 11 through page 23, line 23. Applicants respectfully submit that such uses provide both practical and substantial benefits. Such uses are neither incredible nor unbelievable. These utilities are immediately apparent for the claimed nucleic acid molecules without further research.

The “basic quid pro quo contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility...where specific benefit exists in currently available form.” *Brenner v. Manson*, 383 U.S. 519, 534-35, 148 U.S.P.Q. 689, 695 (1966). Applicants have met this part of the bargain – the present specification discloses nucleic acid molecules which, in their current form, provide at least one specific benefit to the public, for example, their use as promoter regions. *See, e.g.* Specification at page 16, line 12 through page 23, line 23. This benefit is specific, not vague or unknown, and it is a “real world” or substantial benefit.

The “threshold for utility is not high: An invention is ‘useful’ under section 101 if it is capable of providing some identifiable benefit.” *Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364, 1366, 51 U.S.P.Q.2d 1700, 1702 (Fed. Cir. 1999), *citing Brenner v. Manson*, 383 U.S. 519, 534 (1966). Furthermore, an invention need only provide one

identifiable benefit to satisfy 35 U.S.C. § 101. *See Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958, 220 U.S.P.Q. 592, 598 (Fed. Cir. 1983) (“when a properly claimed invention meets at least one stated objective, utility under section 101 is clearly shown”).

The Federal Circuit has recently provided guidance as to the kind of disclosure an application could contain to establish a specific and substantial utility. *In re Fisher*, 421 F.3d 1365, 76 U.S.P.Q.2d 1225 (Fed. Cir, 2005). First, the Court indicated that the specification disclose “that an invention is useful to the public as disclosed in its current form.” *Id.* at 1371. Second, the Court further noted that the specification “also show that that claimed invention can be used to provide a well-defined and particular benefit.” *Id.* Applicants have provided nucleic acid sequences which are shown in the specification to correlate to known genes. Such a correlation is sufficient to satisfy the utility standard. *Id.*

The present specification discloses specific and substantial uses for the nucleic acid molecules, including that they can be used as a promoter or regulatory element (*see, e.g.*, specification at page 16, line 11 through page 23, line 23,) and to prepare constructs for plant transformation (*see, e.g.*, specification at page 62, line 10 through page 80, line 14).

The Examiner argues that “[t]here has been no specific assertion that in fact SEQ ID NO: 1 is a promoter, aside from the claims.” Office Action at page 9. However, as the Board noted, “[c]ontrary to the examiner’s assertion... [applicants’] specification does set forth a statement of utility that corresponds in scope to the subject matter claimed.” Board Decision, at page 6. As the Board decided in its decision, the specification discloses that “[a]nother class of agents of the present invention are nucleic

acid molecules having promoter regions or partial promoter regions, including those located within SEQ ID NO: 1....” *Id.*

The Examiner also argues that

[i]n order to make the claimed invention, one would have to undertake enormous amounts of experimentation to discover if in fact SEQ ID NO: 1 is a promoter or a regulatory element, as suggested by the claims and also suggested by the specification, or if SEQ ID NO: 1 contains a structural gene as also suggested by the specification, or if SEQ ID NO: 1 comprises an intron or an intron/exon boundary as also suggested by the specification.

Office Action at pages 10-11. However, again as recognized by the Board, “[u]nder the utility requirement, ... it makes no sense to require claims to set forth inventions that satisfy all of the disclosed objectives, but that ‘[w]hen a properly claimed invention meets at least one stated objective, utility under § 101 is clearly shown.’” Board Decision at page 5 (citing *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958, 220 USPQ 592, 598 (Fed. Cir. 1998)).

Moreover, the Examiner has provided no support for the apparent proposition that simply because SEQ ID NO: 1 is disclosed as having a promoter region or a partial promoter region does not necessarily exclude SEQ ID NO: 1 also containing sequences encoding structural genes and comprising an intron or an intron/exon boundary.

One of ordinary skill in the art would recognize that the nucleic acid molecules have utility, for example, they can be used as regulatory elements or promoters of expression of structural nucleic acid molecules. These utilities are immediately apparent for the nucleic acid molecules without further research.

The Office, however, argues that further research is necessary to determine whether SEQ ID NO: 1 is a regulatory element or promoter. Office Action at page 6. As the Board stated in its decision, “it is the examiner’s initial burden to establish that those skilled in this art would question the objective truth of the asserted utility.” Board Decision at page 6 (citing *In re Brana*, 51 F.3d 1560, 1567, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995)). Thus, the utilities asserted in the specification must be accepted as factually sound unless the Patent Office cites information that undermines the credibility of the assertion. *Id.* The law dictates that the Examiner “must do more than merely question operability – [she] must set forth factual reasons which would lead one skilled in the art to question the objective truth of the statement of operability.” *In re Gaubert*, 524 F.2d 1222, 1225-26, 187 U.S.P.Q. 664, 666 (C.C.P.A. 1975) (emphasis in original); MPEP § 706.03(a)(1) (“Office personnel are reminded that they must treat as true a statement of fact made by an applicant in relation to an asserted utility, unless countervailing evidence can be provided...”).

An examiner must accept a utility by an applicant unless the Office has evidence or sound scientific reasoning to rebut the assertion. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). “More specifically, when a patent application claiming a nucleic acid asserts a specific, substantial, and credible utility, and bases the assertion upon homology to existing nucleic acids or proteins having an accepted utility, the asserted utility must be accepted by the examiner unless the Office has sufficient evidence or sound scientific reasoning to rebut such as assertion.” Federal Register 66(4):1096, Utility Guidelines (2001). “[A] ‘rigorous correlation’ need not be shown in order to establish practical utility; ‘reasonable correlation’ is sufficient.” *See*,

Fujikawa v. Wattanasin, 93 F.3d 1559, 1565, 39 U.S.P.Q.2d 1895, 1900 (Fed. Cir. 1996).

“An Applicant can establish this reasonable correlation by relying on statistically relevant data documenting the activity of the compound or composition, arguments or reasoning, documentary evidence, or any combination thereof.” M.P.E.P. § 2107.03, at page 2100-43. Applicants have demonstrated such a reasonable correlation.

The recited nucleic acid molecules are disclosed as having promoter regions or partial promoter regions, including regulatory elements. The specification provides ample disclosure of the recited nucleic acid molecules and use as a promoter or partial promoter. Accordingly, the use of the recited nucleic acid molecules as promoter regions or partial promoter regions within the claimed transformed plants and plant cells satisfies the utility requirement of 35 U.S.C. § 101, even considering the nucleic acid molecules alone.

Applicants have disclosed a specific, substantial and credible utility for the claimed nucleic acid molecules, as well as the claimed plants and plant cells containing such nucleic acid molecules. Any one of these utilities is enough to satisfy the requirements of 35 U.S.C. § 101. Because Applicants need only establish a single utility to satisfy 35 U.S.C. § 101, and have done so in the present case, the rejection under Section 101 is incorrect. Reconsideration and withdrawal of this rejection are respectfully requested.

5. Rejection Under 35 U.S.C. §112, 1st Paragraph: Enablement

Claims 3, 5-7, 9-10, and 12-20 were rejected under 35 U.S.C. § 112, first paragraph, as not enabled because the claimed invention allegedly lacks utility. Final

Action at page 13. Applicants respectfully traverse this rejection for the reasons set forth above regarding utility.² Thus, the enablement rejection under 35 U.S.C. § 112, first paragraph is improper. Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

6. Rejection Under 35 U.S.C. §112, 1st Paragraph: Enablement

Claims 3, 5, 6, 7, 9, and 12-20 were also rejected under 35 U.S.C. § 112, first paragraph, as allegedly “[containing] subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.” Office Action at page 14.

The Examiner alleges that “having considered the scope of the claims, the teaching in the specification, the guidance in the prior art, the lack of working examples, and the high level of unpredictability with respect to the prior art, it is concluded that it would require undue experimentation to make and use the claimed invention.” *Id.* at page 20. Applicants respectfully traverse this rejection for at least the reasons which follow.

It is well established patent jurisprudence that Applicants need not teach “conventional and well-known genetic engineering techniques” (*see, e.g., Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345, 56 U.S.P.Q.2d 1332, 1337 (Fed. Cir. 2000)), which would include the use of the recited sequence with other nucleic acid sequences such as in an expression construct. Applicants submit the Examiner has not

² In addition, Applicants note that the Examiner appears to suggest that an analysis of the *Wands* factors supports this rejection. Applicants note that an analysis of the *Wands* factors is set forth in the following section.

met the required burden. Furthermore, Applicants submit that an analysis of the criteria presented by *In re Wands* supports Applicant's position that no undue experimentation would be required to make and use the claimed invention. *See In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1998).

The first *Wands* criterion is the quantity of experimentation necessary. The "make-and-test" quantum of experimentation is reduced by the extensive knowledge, *e.g.*, of promoter sequences and regulatory elements, and cloning methods, to which a person of ordinary skill in the art has access. Performing routine and well-known steps, such as sequence alignment protocols, construct preparation, and gene expression analysis cannot create undue experimentation even if it is laborious. *See In re Angstadt*, 537 F.2d 498, 504, 190 U.S.P.Q. 214, 218-219 (C.C.P.A. 1976).

The second and third *Wands* criteria relate to the amount of direction or guidance given, and the presence or absence of working examples. Again, the specification provides, for example, percent sequence identity, use of SEQ ID NO: 1 in the preparation of constructs, and, as the Examiner acknowledges, discusses SEQ ID NO: 1 as having promoter regions or partial promoter regions. *See, e.g.*, specification at page 16, line 11 through page 23, line 23, page 25, lines 3-11, page 62, line 10 through page 80, line 14 and the sequence listing. Based on such disclosure, one of ordinary skill in the art would be enabled to make and use the invention commensurate in scope with the claims.

The fourth, fifth and sixth *Wands* criteria focuses on the nature of the invention, the state of the art and the relative skill in the art. The present invention relates to nucleic acid molecules, as well as transformed plants and plant cells having such nucleic acid molecules, and the specification further describes promoter regions and partial promoter

regions, constructs and methods related thereto. *See, e.g.*, specification at page 23, line 23, page 25, lines 3-11 (describing promoter regions and regulatory elements) and page 62, line 10 through page 80, line 14 (describing use of the claimed nucleic acid molecules in methods of transforming plants). Practitioners in this art are guided by considerable knowledge and resources on the conditions and approaches that can be utilized to identify, confirm and introduce into hosts, nucleic acid constructs having promoter nucleic acid molecules comprising SEQ ID NO: 1 or a complement thereof.

The seventh criterion considers the predictability of the art. As discussed *supra*, that the specification discloses sufficient guidance to allow one of skill to transform plants and plant cells with the recited nucleic acid molecules, and assay for expression of structural sequences from the nucleic acid sequences. *See, e.g.*, specification at page 16, line 11 through page 23, line 23. Furthermore, the specification provides sufficient guidance to one of skill in the art to decipher the information necessary to make and use the recited nucleic acid molecules. *See, e.g.*, specification at page 63, line 6 through page 71, line 5 (describing the preparation of transformation constructs using the nucleic acid sequences), page 69, line 22 through page 71, line 5 (describing screenable markers for use in monitoring gene expression); and page 71, line 6 through page 80, line 3 (describing methods for the transformation of bacteria and other microorganisms, as well as plant cells, and page 80, lines 4-14 (citing methods for assaying gene expression).

The Examiner cites Pietrkowski *et al.* (Experimental Cell Research, 193, 283-290 (1991)) and Chan *et al.* (Plant Molecular Biology, 46,: 131-141 (2001)) to support the proposition that “mutations in a critical region of a promoter element can destroy the ability of a construct to function in promotion.” Office Action at page 20. However,

these references seem to suggest that modifications can be made to promoter sequences without altering the promoter's function, albeit with reduced activity in some instances. The specification discloses sufficient guidance.

The Office also cites Omilli *et al.* (Molecular and Cellular Biology, June 1986, p. 1875-1885) for the proposition that "the order in which promoter elements occur in a construct has an effect on the functionality of the promoter." *Id.* Applicants submit that the specification provides sufficient guidance to use the recited sequence as a promoter or partial promoter sequence. As set forth above, the specification provides numerous promoter sequences and regulatory elements and provides numerous working examples utilizing such sequences.

The eighth criterion focuses on the breadth of the claims. Enablement is satisfied when the disclosure "adequately guide[s] the art worker to determine, without undue experimentation, which species among all those encompassed by the claimed genus possess the disclosed utility". See *In re Vaeck*, 947 F.2d 488, 496, 20 U.S.P.Q.2d 1438, 1445 (Fed. Cir. 1991). In the present case, one of skill in the art is specifically guided by the disclosure to look to, *e.g.*, sequence identity data and promoter functionality in making that determination.

The Examiner has provided neither evidence supporting the rejection nor any explanation of why the specification allegedly fails to enable the nucleic acid molecules of claims 3-4. See *In re Wright*, 999 F.2d 1557, 1561-62, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993); *Ex parte Lemak*, 210 U.S.P.Q. 306, 307 (B.P.A.I. 1981) ("pure conjecture" does not substantiate rejection for lack of enablement). Moreover, because the above analysis illustrates that the specification clearly enables at least the methods of

making and using the invention the enablement requirement has been satisfied. *Cf. Johns Hopkins University v. CellPro*, 152 F.3d 1342, 1361, 47 U.S.P.Q.2d 1705, 1719 (Fed. Cir. 1998) (“the enablement requirement is met if the description enables any mode of making and using the invention”) (emphasis added), *quoting Engel Indus. v. Lockformer Co.*, 946 F.2d 1528, 1533, 20 U.S.P.Q.2d 1300, 1304 (Fed. Cir. 1991). Furthermore, the analysis of the *Wands* factors, discussed *supra*, conclusively establishes that one of ordinary skill in the art would be able to make and use the claimed invention based on the disclosure in the specification. Accordingly, Applicants respectfully request reconsideration and withdrawal of the enablement rejection under 35 U.S.C. § 112, first paragraph.

7. Claim Rejections – 35 U.S.C. § 112, first paragraph - Written Description

Surprisingly, despite the Board’s reversal of the written description rejection, the Examiner restates that claims 12, 13, 14, 15, 17, 18, and 19 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing “subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.” Office Action at page 21.

Applicants respectfully note that the Board has already ruled on this matter and specifically reversed this rejection. *See*, Board Decision at page 3. In the Decision, the Board stated “[w]e reverse the written description rejection, and remand the application to the examiner for further consideration of the utility and enablement rejections.” *Id.* at page 2. A complete reversal by the Board of a rejection is not an invitation for the

Examiner to revisit the rejection. MPEP 1204.04. Nothing in the Board's statement suggests that the written description rejection is to be further considered. In view of the Board's reversal of this rejection, Applicants request reconsideration and withdrawal of the rejection of claims 12, 13, 14, 15, 17, 18, and 19 under 35 U.S.C. § 112, first paragraph.

8. Claim Rejections – 35 U.S.C. § 102(b)

Claims 3, 5, 6, 7, 9, and 10-19 are rejected under 35 U.S.C. § 102(b) as allegedly “anticipated by Tanksley et al. (US 5648599).” Office Action at page 25. According to the Examiner, “Tanksley et al teach a transformed plant cell and transformed plants comprising said cells, wherein said cells comprise an exogenous promoter, a structural gene, and a termination sequence.” *Id.* The Examiner argues that “[t]hese claims are anticipated by Tanksley et al. insofar as they require only a instant SEQ ID NO: 1 or ‘a complement thereof’.” *Id.* The Examiner further argues that “[t]he use of the indefinite article ‘a’ to modify the required complement is interpreted to require that the claimed molecules only have to have any portion that is ‘a’ complement of SEQ ID NO: 1, including a single nucleotide.” *Id.*

In addition, claims 10-20 have been rejected under 35 U.S.C. § 102(b) as allegedly “anticipated by Stratagene Catalog (1997, p. 95).” Office Action at page 26. According to the Examiner, “Stratagene teaches a mix of substantially purified molecules having therein every possible hexamer sequence.” *Id.* The Examiner argues that “[t]hese claims are anticipated by hexamer mix insofar as they require only a instant SEQ ID NO: 1 or ‘a complement thereof’.” *Id.* The Examiner further argues that “[t]he use of the

indefinite article 'a' to modify the required complement is interpreted to require that the claimed molecules only have to have any portion that is 'a' complement of SEQ ID NO: 1, including a single nucleotide." *Id.* Applicants respectfully disagree.

"It is axiomatic that for prior art to anticipate under § 102 it has to meet every element of the claimed invention." *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986). Further, "an anticipation rejection requires a showing that each limitation of a claim must be found in a single reference, practice, or device." *In re Donohue*, 766 F.2d 531, 226 U.S.P.Q. 619 (Fed. Cir. 1985). The Examiner maintains an untenable interpretation of the claims to cover small fragments of the sequence, as small as 1 nucleotide. Although Applicants disagree with the rejection, to facilitate prosecution, the claims have been amended to recite "the complement thereof." Whatever Tanksley, *et al.* or Stratagene teach, they do not disclose SEQ ID NO: 1, or its complement in its entirety. Absent a teaching of each and every element of the claim, *e.g.*, SEQ ID NO: 1, the references cited by the Examiner do not anticipate the pending claims and the rejections should be withdrawn.

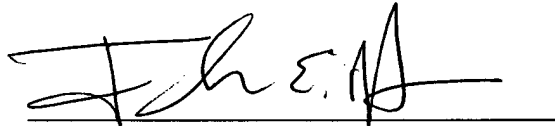
Accordingly, Applicants respectfully request reconsideration and withdrawal of the claim rejections under 35 U.S.C. § 102(b).

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that the present application is now in condition for allowance, and notice of such is respectfully requested. The Examiner is encouraged to contact the undersigned should any additional information be necessary for allowance.

Respectfully submitted,

Date: July 6, 2006



Thomas E. Holsten (Reg. No. 46,098)

David R. Marsh (Reg. No. 41,408)

Of Counsel
Lawrence M. Lavin, Jr. (Reg. No. 30,768)
Thomas E. Kelley (Reg. No. 29,938)
Monsanto Company

ARNOLD & PORTER LLP
555 Twelfth Street, NW
Washington, DC 20004-1206
202.942.5000 telephone
202.942.5999 facsimile

Correspondence Address:
Monsanto Company
Patent Department/E2NA
800 N. Lindbergh Boulevard
St. Louis, MO 63167
314.694.1000 telephone
314.694.9009 fax